

IN THE CLAIMS

Claim 1 (currently amended): An apparatus for producing an RF transmission signal including a plurality of frequency channels, comprising:

an IF processor having a first input for receiving a baseband signal and a second input for receiving a first combining signal, said IF processor for combining the baseband signal with the first combining signal to produce an IF signal;

an RF processor having a first input coupled to said IF processor for receiving the IF signal and a second input for receiving a second combining signal, said RF processor for combining the IF signal with the second combining signal to produce an said RF transmission signal including a the plurality of frequency channels separated by a desired frequency channel spacing;

a first frequency synthesizer coupled to said second input of said IF processor for providing the first combining signal at one of a plurality of possible frequencies separated from one another by a raster component of said desired frequency channel spacing; and

said first frequency synthesizer including a comparison frequency generator for generating a comparison frequency corresponding to said raster component, said first frequency synthesizer responsive to said comparison frequency for producing the first combining signal.

Claim 2 (original): The apparatus of Claim 1, wherein the comparison frequency is an integer multiple of said raster component.

Claim 3 (original): The apparatus of Claim 1, wherein the comparison frequency is equal to said raster component.

Claim 4 (original): The apparatus of Claim 1, wherein said first frequency synthesizer includes an integer phase locked loop.

Claim 5 (original): The apparatus of Claim 4, wherein said phase locked loop is a type -1 phase locked loop.

Claim 6 (currently amended): The apparatus of Claim 1, provided wherein said apparatus is in a UMTS transmitter.

(Universal Mobile Telecommunication System)

Claim 7 (currently amended): The apparatus of Claim 1 provided wherein said apparatus is in a WCDMA transmitter.

Claim 8 (currently amended): The apparatus of Claim 1, further including a second frequency synthesizer coupled to said second input of said RF processor for providing the second combining signal, said second frequency synthesizer ~~including a~~ further comprising a comparison frequency generator for generating a further comparison frequency that is greater than said raster component, said second frequency synthesizer responsive to said further comparison frequency for producing the second combining signal.

further
Claim 9 (currently amended): The apparatus of Claim 8, wherein the ~~further~~ comparison frequency corresponds to a ~~further~~ component of said desired frequency channel spacing other than said raster component.

Claim 10 (original): The apparatus of Claim 8, wherein said second frequency synthesizer includes an integer phase locked loop.

Claim 11 (original): A method for producing an RF transmission signal including a plurality of frequency channels separated by a desired frequency channel spacing, comprising:

providing a first combining signal at one of a plurality of possible frequencies separated from one another by a raster component of the desired frequency channel spacing, including generating a comparison frequency corresponding to said raster

component and producing the first combining signal in response to said comparison frequency;

combining the first combining signal with a baseband signal to produce an IF signal; and

combining the IF signal with a second combining signal to produce the RF transmission signal.

Claim 12 (original): The method of Claim 11, wherein the comparison frequency is an integer multiple of said raster component.

Claim 13 (original): The method of Claim 11, wherein the comparison frequency is equal to said raster component.

Claim 14 (original): The method of Claim 11, wherein said providing step includes using an integer phase locked loop to produce the first combining signal.

Claim 15 (original): The method of Claim 14, wherein said using step includes using a type-1 phase locked loop to produce the first combining signal.

Claim 16 (original): The method of Claim 11, wherein the RF transmission signal is a UMTS transmission signal.

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Claim 17 (original): The method of Claim 11, wherein the RF transmission signal is a WCDMA transmission signal.

Claim 18 (original): The method of Claim 11, including generating a further comparison frequency that is greater than said raster component, and producing the second combining signal in response to said further comparison frequency.

Claim 19 (original): The method of Claim 18, wherein the further comparison frequency corresponds to a ~~further~~ component of said desired frequency channel spacing other than said raster component.

Claim 20 (original): The method of Claim 18, wherein said step of producing the second combining signal includes using an integer phase locked loop to produce the second combining signal.

Claims 21-25 (cancelled)